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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,253	03/07/2002	Kunimasa Shimizu	Q66589	9282

7590 06/29/2007
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Washington, DC 20037-3202

EXAMINER

GLASS, RUSSELL S

ART UNIT	PAPER NUMBER
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3626

MAIL DATE	DELIVERY MODE
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06/29/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/092,253

Applicant(s)

SHIMIZU ET AL.

Examiner

Russell S. Glass

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-72 is/are pending in the application.
- 4a) Of the above claim(s) 13-16, 20-32, 34-52 and 55-72 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 17-19, 33, 53 and 54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The rejections of Claims 4, 12 and 19 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement are withdrawn based upon applicant's arguments dated April 13, 2007 that indicate that the individual weights of 1.0 or 0.5 assigned to diagnoses are determined in the mind of a person and not the claimed system. Examiner agrees that if a person assigns a weight of 1.0 or 0.5 to a doctor and then enters this value into the claimed system to compute the weight to be given each diagnosis by that doctor, then the claims are enabled.
2. The rejections of Claims 2, 3, and 11 under 35 U.S.C. 112 were withdrawn in the last office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claims 1-12, 17-19, 33, 53, 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al., (U.S. 6,260,021), in view of Marchosky, (U.S. 2002/0029157).

4. As per claim 1, Wong discloses a medical image reading system comprising:

a plurality of diagnostic clients provided with an image output means which outputs image data to be examined as a visible image, and a diagnosis input means for inputting individual diagnoses obtained on the basis of visible images, (Wong, Abstract, col. 3, lines 30-60; col. 11, lines 29-48) (disclosing processing of various diagnostic images for the purpose of diagnosis by a client/user, such as X-ray, MRI, ultrasound, etc.),

at least one management client provided with a result output means for outputting result of examination obtained on the basis of the individual diagnoses, (Wong, Abstract; Fig. 2; col. 9, line 34-63; col. 11, lines 29-48; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would send information including the number of diagnostic images and associated results to be transmitted to a management client in the form of an Object Request Broker), and

a server provided with an image storage means and a result storage means which are connected to the diagnostic clients and the management client by way of a network, the image storage means storing image data to be examined and the result storage means storing results of examination obtained on the basis of the individual

diagnoses with the results of examination related to the image data, (Wong, Abstract; col. 3, line 60 - col. 4, line 15),

the server causes the result storage means to store results of examination obtained on the basis of the individual diagnoses sent from the respective diagnostic clients, (Wong, Abstract; col. 11, lines 29-48; col. 12, lines 65 - col. 13, line 62), and

the management client receives the result of examination from the server by way of the network and causes the result output means to output the same, (Wong, Abstract; Fig. 2; col. 9, line 34-63; col. 11, lines 29-48; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would send information including the number of diagnostic images and associated results to be transmitted to a management client in the form of an Object Request Broker).

Wong fails to disclose a system wherein each of the diagnostic clients receives a same image data to be examined from the server by way of a network, outputs the same image data to be examined through the image output means and sends individual diagnoses input through the diagnosis input means for the respective images represented by the same image data to be examined to the server by way of the network. However, such a system component allowing multiple doctors receive the same medical image and then transmit their diagnosis is well known in the art as evidenced by Marchosky, (Marchosky, figs. 4A-E, ¶ 10, 11, 91).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Wong and Marchosky in the claimed manner. The motivation would have been to allow health care professionals from different health care providers

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to easily review the same record and confer with each other as to diagnosis and treatment, (Marchosky, ¶ 11).

5. As per claim 2, Wong discloses a medical image reading system in which said server is further provided with an informing means which, when the server receives a predetermined number of said diagnoses, sends information to the effect that the server has received a predetermined number of said diagnoses to the management client and the management client is provided with an information receiving and output means which receives the information and outputs the same, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would receive and send information including the number of diagnostic images and associated results to be transmitted to a management client in the form of an Object Request Broker).

The motivation to combine Wong and Marchosky is as provided in the rejection of claim 1 and incorporated herein by reference.

6. As per claim 5, Wong discloses a medical image reading system in which client is connected by way of a network to a server provided with an image storage means which stores image data to be examined and a result storage means which stores results of examination obtained on the basis of the individual diagnoses, and comprises a data receiving means which receives the image data to be examined from the server, (Wong, Abstract Figs. 1, 2; col. 3, line 60 - col. 4, line 15),

an image output means which outputs the image data to be examined as a visible image, (Wong, Abstract Figs. 1, 2; col. 3, line 60 - col. 4, line 15),,

a diagnosis input means for inputting individual diagnoses obtained on the basis of visible images, (Wong, Abstract Figs. 1, 2; col. 3, line 60 - col. 4, line 15),, and

a data sending means which sends the individual diagnoses input through the diagnosis input means to the server, (Wong, Abstract Figs. 1, 2; col. 3, line 60 - col. 4, line 15).

The motivation to combine Wong and Marchosky is as provided in the rejection of claim 1 and incorporated herein by reference.

7. As per claim 7, Wong discloses a medical image reading system in which client is connected by way of a network to a server provided with an image storage means which stores image data to be examined and a result storage means which stores results of examination obtained on the basis of the individual diagnoses, and comprises

a data receiving means which receives results of examination from the server, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would send information including diagnostic images and associated results for transmission to a management client in the form of an Object Request Broker), and

a result output means which outputs the results of examination received by the data receiving means, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62).

The motivation to combine Wong and Marchosky is as provided in the rejection of claim 1 and incorporated herein by reference.

8. As per claim 8, Wong discloses a system in which said data receiving means is further provided with an information output means which receives information to the effect that the server has received a predetermined number of said diagnoses from the server and outputs the same, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would send information including the number of diagnostic images and associated results).

The motivation to combine Wong and Marchosky is as provided in the rejection of claim 1 and incorporated herein by reference.

9. As per claim 9, Wong discloses a server for a medical image reading system in which server is connected by way of a network to a plurality of diagnostic client and at least one management client and comprises

an image storage means which stores image data to be examined, (Wong, Abstract Figs. 1, 2; col. 9, line 34 - col. 10, line 27),

a data sending means which sends the image data stored in the image storage means to the diagnostic clients, (Wong, Abstract Figs. 1, 2; col. 9, line 34 - col. 10, line 27),

a data receiving means which receives from the diagnostic clients individual diagnoses obtained on the basis of the image data to be examined, (Wong, Abstract Figs. 1, 2; col. 9, line 34 - col. 10, line 27), and

a result storage means which stores results of examination obtained on the basis of the individual diagnoses with the results of examination related to the image data to be examined, (Wong, Abstract Figs. 1, 2; col. 9, line 34 - col. 10, line 27), wherein

said data sending means is further provided with a function of sending to the management clients the results of examination stored in the result storage means, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would send information including diagnostic images and associated results for transmission to a management client in the form of an Object Request Broker).

The motivation to combine Wong and Marchosky is as provided in the rejection of claim 1 and incorporated herein by reference.

10. As per claim 10, Wong discloses a server in which said data sending means is further provided an information sending means which sends to the management client information to the effect that the server has received a predetermined number of said diagnoses, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would send information including the number of diagnostic images and associated results for transmission to a management client in the form of an Object Request Broker).

The motivation to combine Wong and Marchosky is as provided in the rejection of claim 1 and incorporated herein by reference.

11. As per claim 17, Wong discloses a medical image reading method comprising the steps of

storing image data to be examined in a server which is provided at a place remote from a plurality of diagnostic clients and connected to the diagnostic clients by way of a network, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62),

inputting individual diagnoses obtained on the basis of the output visible image through the diagnostic clients, (Wong, Abstract, col. 3, lines 30-60; col. 11, lines 29-48) (disclosing processing of various diagnostic images for the purpose of diagnosis by a client/user, such as X-ray, MRI, ultrasound, etc.),

sending the individual diagnoses to the server, storing in the server results of examination obtained on the basis of the individual diagnoses sent thereto with the results of examination related to the pieces of image data, (Wong, Fig. 2; col. 9, line 34-63), and

causing a management client to receive the result of examination for a desired piece of image data stored in the server and to output the same, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would send information including diagnostic images and associated results for transmission to a management client in the form of an Object Request Broker).

Wong Fails to disclose the following method step of causing each of the diagnostic clients to receive a same piece of image data out of the image data stored in the server and to output the same piece of image data as a visible image, (Wong, Abstract Figs. 1, 2; col. 9, line 34 - col. 10, line 27). However, such a method step allowing multiple doctors receive the same medical image and then transmit their diagnosis is well known in the art as evidenced by Marchosky, (Marchosky, figs. 4A-E, ¶ 10, 11, 91).

The motivation to combine Wong and Marchosky is as provided in the rejection of claim 1 and incorporated herein by reference.

12. As per claim 18, Wong discloses a medical image reading method further comprising the step of causing the server, when the server receives all the diagnoses, to send information to the effect that the server has received all of said diagnoses to the management client, (Wong, Fig. 2; col. 9, line 34-63; col. 13, lines 26-62) (disclosing well-known client/server architecture and object-oriented formats that would send information including the number of diagnostic images and associated results for transmission to a management client in the form of an Object Request Broker).

The motivation to combine Wong and Marchosky is as provided in the rejection of claim 1 and incorporated herein by reference.

13. As per claim 33, Wong discloses a program for causing a computer to execute processing of sending medical image data to a sever by way of a network,

processing of sending a request for receiving a desired piece of medical image data out of image data stored in the server to the server, (Wong, col. 6, lines 1-55), and processing of outputting as a visible image the desired piece of medical image data, (Wong, col. 6, lines 1-55).

The motivation to combine Wong and Marchosky is as provided in the rejection of claim 1 and incorporated herein by reference.

14. As per claim 53, Wong discloses a program for causing a computer to execute processing of sending a request for receiving medical image data related to a predetermined examination out of image data stored in a sever by way of a network to the server, (Wong, col. 6, lines 1-55),

processing of receiving medical image data as requested by the request for receiving medical image data, (Wong, col. 6, lines 1-55), and

processing of outputting as a visible image the medical image data received, (Wong, col. 6, lines 1-55).

The motivation to combine Wong and Marchosky is as provided in the rejection of claim 1 and incorporated herein by reference.

15. As per claim 54, Wong discloses a program for causing a computer to further execute

processing of sending, to the server, purpose information representing the purpose of examination together with the request for receiving medical image data

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related to the predetermined examination, (Wong, col. 6, lines 1-55, col. 11, lines 29-48)(patient visit information is considered to be purpose information), and

processing of receiving medical image data related to the predetermined examination within an available range determined purpose by purpose on the basis of the purpose information, (Wong, col. 6, lines 35-55) (available range is considered to be search results within request criteria).

The motivation to combine Wong and Marchosky is as provided in the rejection of claim 1 and incorporated herein by reference.

16. As per claim 3, Wong fails to disclose a medical image reading system in which said server further comprises an automatic determination means which automatically makes examination for a given piece of image data on the basis of all or part of the individual diagnoses received and outputs result of examination. However, such a system is well-known in the art as evidenced by Marchosky, (Marchosky, Abstract, Fig. 2B, 2C, 4D: ¶ 79-82) (disclosing an automatic determination means for examining image data).

It would have been obvious to one of ordinary skill in the art to combine Wong and Marchosky. The motivation would have been to allow weighted diagnostic program information, including imaging, to be incorporated in to a computerized medical record database, (Marchosky, Abstract; Fig. 4D).

17. As per claim 4, Wong fails to disclose a medical image reading system in which,

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each of the diagnostic clients is provided with a function of sending data on the doctor in charge together with the relevant individual diagnosis to the server so that the automatic determination means makes examination weighting the individual diagnoses according to the doctor in charge. However, such a system is well-known in the art as evidenced by Marchosky, (Marchosky, Abstract, Fig. 3: ¶ 75-78, 91) (disclosing weighting diagnostic information and storing information related to the doctor in charge).

It would be obvious to one of ordinary skill in the art to modify Marchosky in order to weight variables according to the doctor in charge. The motivation would have been to eliminate any bias in the results, (Marchosky, ¶ 94).

18. As per claim 6, Wong fails to disclose a diagnostic client in which said data sending means sends data on the doctor in charge together with the relevant individual diagnosis to the server. However, such a diagnostic client is well-known in the art as evidenced by Marchosky, (Marchosky, ¶ 91).

19. As per claim 11, Wong fails to disclose a server in which said data sending means is further provided with an automatic determination means which automatically makes examination for a given piece of image data on the basis of all or part of the individual diagnoses received and outputs result of examination. However, such a server is well-known in the art as evidenced by Marchosky, (Marchosky, Abstract, Fig. 2B, 2C, 4D: ¶ 79-82) (disclosing an automatic determination means for examining image data).

20. As per claim 12, Wong fails to disclose a server in which said data receiving means receives data on the doctor in charge together with the relevant individual diagnosis from the diagnostic client, and the automatic determination means makes examination weighting the individual diagnoses according to the doctor in charge.

However, such a server is well-known in the art as evidenced by Marchosky, (Marchosky, Abstract, Fig. 3: ¶ 75-78, 91) (disclosing weighting diagnostic information and storing information related to the doctor in charge).

It would be obvious to one of ordinary skill in the art to modify Marchosky in order to weight variables according to the doctor in charge. The motivation would have been to eliminate any bias in the results, (Marchosky, ¶ 94).

21. As per claim 19, Wong fails to disclose a medical image reading method as in which the result of examination is weighted by individual diagnoses. However, such a method is well-known in the art as evidenced by Marchosky, (Marchosky, Abstract, Fig. 3: ¶ 75-78, 91) (disclosing weighting diagnostic information).

It would be obvious to one of ordinary skill in the art to modify Marchosky in order to weight variables as claimed. The motivation would have been to eliminate any bias in the results, (Marchosky, ¶ 94).

Response to Arguments

Applicant's arguments filed March 13, 2007 have been fully considered but they are not persuasive for the following reasons:

1. As per applicant's arguments that Wong fails to teach that each computer receives the same image data, it is noted that the features upon which applicant relies are now rejected as obvious over Wong in view of Marchosky for the reasons provided in the 103(a) rejections above.
2. As per applicant's argument that Wong fails to disclose that "the results of examination are obtained on the basis of the individual diagnoses sent from the respective diagnostic clients", it is submitted that Wong in fact discloses these features. Wong discloses diagnostic clients because Wong discloses transferring diagnostic image information regarding a broad range of diagnostic healthcare activities, (Wong, col. 1, line 66-col. 2, line 3). Wong also discloses an object interface for providing results and interpretation information and for relation of interpretation information to the other classes of information, (Wong, col. 11, lines 41-44). Wong also discloses that any user can access the medical image distribution system and receive data, said data being considered to include results of examination, (Wong, col. 13, lines 29-33).
3. As per applicant's argument that Wong fails to disclose processing of sending medical image data related to a predetermined examination of image data stored in a

server by way of a network, it is submitted that Wong discloses this feature, (Wong, col. 1, lines 6-12; col. 11, lines 41-44; col. 13, lines 29-33)(image data results and interpretation information are image data related to a predetermined examination).

4. As per applicant's argument that the combination of Wong and Marchosky fails to disclose a function of sending data on the doctor in charge to the server, it is submitted that Wong discloses this limitation in the form of user access authorization and preferences based data sent to the server to confirm the identity of the user, (Wong, col. 3, lines 46-50). Examiner broadly interprets the claim language to read on Wong by reasoning that if the doctor in charge is a user, then the screen is personalized by sending data on the doctor in charge to the server.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to whose telephone number is 571-272-3132. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on 571-272-6776. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.


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RSG
6/20/2007




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